

What is claimed is:

1. A method of communicating in a wireless network which includes a computer, a wireless communicating device and a peripheral device, comprising:

5 a) providing the wireless communicating device with a network-setting list that has a list of service set identifiers (SSID);

b) conducting a linking detection so as to locate a linking request from the computer or the peripheral device, each linking request having a specific SSID; and

10 c) processing the linking request in ad-hoc mode if the specific SSID matches one of the SSIDs in the network-setting list, and processing the linking request in infrastructure mode if the specific SSID does not match one of the SSIDs in the network-setting list.

2. The method as claimed in claim 1, further including:

15 the wireless communicating device activates the ad-hoc mode and the infrastructure mode.

3. The method as claimed in claim 1, wherein the wireless communicating device is a wireless network card which complies with a standard wireless network communication protocol.

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4. The method as claimed in claim 2, further including initializing a firmware in the wireless communicating device to activate the ad-hoc mode and the infrastructure mode.

25 5. The method as claimed in claim 1, wherein the linking request includes a transmitting request or a receiving request.

30 6. The method as claimed in claim 1, wherein the peripheral device is selected from the group consisted of computer mouse, trackball, keyboard, joystick, tablet, touch pad, game controller, scanner and printer.

7. The method as claimed in claim 1, wherein the computer provides the wireless communicating device with the network-setting list.

8. The method as claimed in claim 1, wherein the wireless network further includes a remote server, and wherein step (b) further includes:

conducting a linking detection so as to locate a linking request from the server, the computer or the peripheral device, each linking request having a specific SSID.

9. A method of communicating in a wireless network with a wireless communicating device of a computer, the method comprising:

receiving a network-setting list from the computer, the network setting list having a list of service set identifiers (SSID);

the wireless communicating device locating a linking request based on an acceptable SSID that is found in the network setting list; and

processing the linking request in the ad-hoc mode with a near-end device or in the infrastructure mode with a remote-end device, depending on whether the acceptable SSID is found in the network setting list.

10. The method as claimed in claim 9, further including:

the wireless communicating device activates the ad-hoc mode and the infrastructure mode.

11. The method as claimed in claim 9, wherein the wireless communicating device is a wireless network card which complies with a standard wireless network communication protocol.

12. The method as claimed in claim 10, further including initializing a firmware in the wireless communicating device to activate the ac-hoc mode and the infrastructure mode.

13. The method as claimed in claim 9, wherein the linking request includes a transmitting request or a receiving request.

14. The method as claimed in claim 9, wherein the peripheral device is selected from the group consisted of computer mouse, trackball, keyboard, joystick, tablet, touch pad, game controller, scanner and printer.